



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

AUG 9 2001

DOT-E 11580
(THIRD REVISION)

EXPIRATION DATE: June 30, 2003

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: The Columbiana Boiler Company (CBC)
Columbiana, Ohio

2. PURPOSE AND LIMITATIONS:

This exemption authorizes the manufacture, mark, sale and use of non-DOT specification stainless steel cylinders conforming to all regulations applicable to DOT specification 4BW, except as specified herein, for use in transporting materials authorized under this exemption. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.40(a), § 173.158(b), (g), and (h), § 173.192(a), § 173.201(c), § 173.202(c), § 173.203(c), § 173.226(a), § 173.227(a), § 173.336 and § 175.3 in that non-DOT specification cylinders are not authorized, except as specified herein.
5. BASIS: This exemption is based on the application of Columbiana Boiler Company dated June 1, 2001, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

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Proper Shipping Name/ Hazardous Material Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Toxic liquids, flammable, organic, n.o.s. (50% anhydrous hydrazine and 50% unsymmetrical dimethylhydrazine)	6.1	UN2929	I Hazard Zone B
Dimethylhydrazine, unsymmetrical	6.1	UN1163	I Hazard Zone B
Dinitrogen tetroxide, liquefied Hazard Zone A	2.3	UN1067	N/A
Hydrazine, anhydrous	8	UN2029	I
Methylhydrazine	6.1	UN1244	I Hazard Zone A
Nitric acid <i>other than red fuming, with more than 70 percent nitric acid</i>	8	UN2031	I
Nitric acid <i>other than red fuming, with not more than 70 percent nitric acid</i>	8	UN2031	II
Those materials authorized to be transported in DOT Specification 4BW cylinders	As Appro- priate	As Appro- priate	As Appro- priate

The provisions of 49 CFR 172.101, Column 9B apply to air shipments made under the terms of this exemption.

7. SAFETY CONTROL MEASURES:

- a. PACKAGING - Packaging prescribed is a non-DOT specification steel cylinder conforming with the general requirements for specification cylinders (§ 178.35) and DOT Specification 4BW (§ 178.61), except as follows:

§ 178.35(b) Inspection by whom and where.

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(1) Inspections and verifications must be performed by a third party. The third party inspector must either be a National Board Authorized Inspector or an inspector approved in writing by the Associate Administrator for Hazardous Materials Safety, in accordance with §173.300a of the Hazardous Materials Regulations.

(2) * * *

§ 178.35(f) Marking.

(1) Marking on each cylinder stamped as follows:

(i) "DOT-E 11580" followed by the service pressure.

* * *

§ 178.61(b) Authorized steel.

Material of construction must be SA240 type 304L or type 316L stainless steel.

§ 178.61(d) Manufacture.

(1) * * *

(2) Circumferential seam welds must be full penetration butt welds with full 100% radiograph inspection.

§ 178.61(g) Heat treatment.

Cylinders need not be heat treated.

§178.61(i) Hydrostatic test.

(1), (2), (3), and (4) * * *

(5) The first finished cylinder out of each lot of 500 or less successively produced must be hydrostatically tested to 4 times service pressure without bursting.

§ 178.61(j) Physical tests.

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- (1) Specimens must be taken from the first cylinder from each lot of 500 or less as follows:

* * *

b. TESTING -

- (1) For the transportation of dinitrogen tetroxide, liquefied and nitric acid, cylinders must be inspected and tested as required in NASA Kennedy Space Center Procurement Specification 81K05262.

- (2) Cylinders must be retested in accordance with the requirements of § 173.34 applicable to DOT 4BW cylinders.

c. OPERATIONAL CONTROLS -

- (1) The transport pressure must be limited to 50 psig.

- (2) The following additional requirements apply for the transportation of dinitrogen tetroxide, liquefied and nitric acid:

- (i) Cylinders must be in conformance with NASA Kennedy Space Center Procurement Specification 81K05262;

- (ii) Cylinders must be in conformance with § 173.40 except as follows:

- § 173.40(c)(1) Connections must be straight threads with controlled root radius straight threads (thread form symbol UNJ) in accordance with Military Specification MIL-S-8879. Female ports must be UNJ straight threads and must meet Military Standard MS33649. The sealing gasket must be polytetrafluoro-ethylene preformed packing per Military Standard MS9956. Preformed packing must be deformed in assembly only once; reassembly must require a new preformed packing; and

- § 173.40(c)(2) Valves must be quarter turn ball valves with secondary stem containment

stem seals of a NASA approved design. Prior to filling, or at a minimum frequency of one year, a bubble leak check must be performed on all mechanical joints at a minimum of 200 psig. Prior to cylinder refill, or at a five-year frequency, whichever is greater, valves must have all softgood materials (such as seats, packing, and o-rings) replaced, valves must be cleaned, and valves must be leak-tested at rated pressure at all joints and across the seat.

(iii) Cylinders may not be equipped with safety relief devices. Cylinders must be equipped with a detachable protective housing for the loading and unloading valves.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.

c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this exemption must be marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.

f. This exemption is to serve as an authorization of the Competent Authority for the United States CA-9602012 under Section 10.3 of the General Introduction to the

International Maritime Dangerous Goods Code and Section 2.5 Chapter 2 of Part 3 of the International Civil Aviation Organization's Technical Instructions authorizing the use of the packaging, described in paragraph 7, for the substances authorized for transport in cylinders (receptacles).

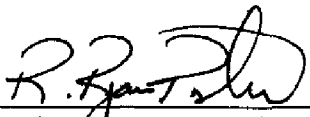
- g. Transportation of Division 2.1 (flammable gases) and Division 2.3 (gases which are poisonous by inhalation) are not authorized aboard cargo vessel or aircraft unless specifically authorized in the Hazardous Materials Table (§ 172.101).
- h. Transportation of oxygen is only authorized when in accordance with § 172.102(c)(2) Special Provision A52 and §§ 175.85(h) and (i).
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, cargo aircraft only (See paragraphs 8(g) and (h) for restriction).
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this exemption. The shipper shall furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued at Washington, D.C.


fr Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

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(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: KFW